

**RA 4TH AND PART BILL
BAR CHART**

BRUHAT BANGALORE MAHANAGARA PALIKESYATARA VANDANA DIVISION

ne of Project: Package - 04 includes 7 Works of Rs. 582.00 Lakhs: 1) Improvements to roads and drains at Amruthabelli main road, Kalyanapur layout and surrounding areas in ward no. 07. 2) Improvements to Roads and Drains at Channarayana layout and Channarayana layout in ward no. 08. 3) Improvements to Roads and Drains at Doddehalli colony, Marathahalli, 33 Major and surrounding areas in ward no. 04. 4) Improvements to Roads and Drains at Doddehalli colony, Marathahalli, 33 Major and surrounding areas in ward no. 04. 5) Improvements to Roads and Drains at Doddehalli colony, Marathahalli, 33 Major and surrounding areas in ward no. 04. 6) Improvements to Roads and Drains at Doddehalli colony, Marathahalli, 33 Major and surrounding areas in ward no. 04. 7) Improvements to Roads and Drains at Doddehalli colony, Marathahalli, 33 Major and surrounding areas in ward no. 04. 8) Improvements to Roads and Drains at Doddehalli colony, Marathahalli, 33 Major and surrounding areas in ward no. 04. 9) Improvements to Roads and Drains at Doddehalli colony, Marathahalli, 33 Major and surrounding areas in ward no. 04. 10) Improvements to Roads and Drains at Doddehalli colony, Marathahalli, 33 Major and surrounding areas in ward no. 04. 11) Improvements to Roads and Drains at Doddehalli colony, Marathahalli, 33 Major and surrounding areas in ward no. 04.

Description of Work	Units	% Completed	Bar Chart				
			Progress Chart				
			0-20%	20-40%	40-60%	60-80%	80-100%
Removing and re-laying footpath slab (P no 256,1 no 37 56 of PW. PAWITDA SR 2018/19)	Sqm	98.24					
KSRRB 300-1 Earth work excavation by manual means in Ordinary Soil soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications complete as per specifications NORTH chapter 3 No. 143/ Item No. 19.1/ PWD SR 2018-19	Cum	99.92					
KSRRB M400-17: Providing, laying spreading and compacting graded stones aggregate to wet mix macadam specifications including premixing the material with water at CMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH specification No. 406, P No. 155/ Item No. 20.18/ PWD SR 2018-19	Sqm	99.96					
KSRRB 500-4 providing and applying primer coat from 7.5 to 9.8 kg and 9.8 to 12.2kg per 10 sqm for surfaces of low and medium porosity respectively over prepared surface of granular base with cut bank M-C-70 or any other bitumen mixed with diesel at 10 kg per 10 sqm heated in bitumen boiler fitted with spray set (including cleaning of road surface) including cost of all materials, labour, HDM of machines complete as per specifications MORTH chapter 5, No. 158/ Item No. 21.6/ PWD SR 2018-19	Sqm	95.96					
KSRRB 500-11 Providing and laying bituminous macadam on Prepared Surface with crushed Coarse aggregates as per Design mix formulae for base/binding course including loading of aggregates with P.E loader, Hot mixing of Stone aggregates and bitumen in Hot mix plant, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve desired density, but excluding cost of primer/Tack coat including lead, lift and cost of all materials, labour HDM of machines complete as per Specifications. MORTH Ch 5, using 40/60 TPH capacity HMF with Mechanical power Gr-II (50mm - 75mm) with 3.4% VC-30 bitumen. Item no 21.11.6	Cum	95.95					
KSRRB 500-9 providing and applying tack coat on granular base such as WBM and WMM surfaces hot bitumen primed at 10 kg per 10 sqm, heating bitumen in boiler fitted with spray set (including cleaning of road surface) including cost of all materials, labour, HDM of machines complete as per specifications. MORTH specifications 5, No. 158/ Item No. 21.9/ PWD SR 2018-19	Sqm	99.46					
KSRRB M400-19 providing and laying bituminous concrete FORM TYPED WITH 120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with hydraulic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem roller to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects as per specifications. MORTH specification 30-45mm compacted thickness Gradation with 6% bitumen 50/100 No. 161/Item No. 21.22.1/ PWD	Cum	99.46					
kerb m300 - 54 Construction of embankment with approved material deposited at site from road way cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-2 complete as per specifications which includes watering charges and compaction by vibratory roller. month specification no 305, 19.61 page no 147	Cum	62.26					
KSRRB M400-17 providing and laying bituminous concrete FORM TYPED WITH 120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 5.4 to 5.6% of mix and filler, transporting the hot mix to work site, laying with hydraulic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem roller to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects as per specifications. MORTH specification 30-45mm compacted thickness Gradation with 6% bitumen 50/100 No. 161/Item No. 21.22.1/ PWD	Sqm	100.00					

KSRRB 15-17.6: Applying priming coat over new wood surface and / or wood based surface preparing the surface after thoroughly cleaning oil, grease, dirt, and foreign matter, sand papering and knotting ready mix paint including cost of materials, labour, complete as per specifications. Page No. 120/ Item No. 15.59 / PWD SR 2018-19	Sqm	36.31	
KSRRB 15-17.6: Providing and applying painting two coats (excluding priming coat) on new wood surface and / or wood based surface with enamel paint to give an even shade, cleaning the surface of all dirt, dust and foreign matter, sand papering including cost of materials, labour, complete as per specifications. Page No. 121/ Item No. 15.60.1 / PWD SR 2018-19	Sqm	100.00	
Dismantling cement concrete flooring or plain cement concrete work including removing and conveying the debris to distance upto 200 m (within average thickness of 15 cm), No. 270 Item No. 37.51 PWD SR 2018-19	Sqm	61.85	
KSRRB M300-50.2: loosening, leveling and compacting original ground supporting embankment to facilitate placement of first layer of embankment, scarified to a depth of 150mm, mixed with water at OMC and then compacted by rolling so as to achieve minimum dry density as given in table 300-2 for embankment construction, complete as per specifications, case-II, compacting original ground supporting embankment, (which includes watering charges & compaction by vibratory roller) NORTH specification No. 3.5.3.4 Page No. 146, Item No. 19.66/ PWD SR 2018-19	Sqm	62.26	
KSRRB M300-50.2: Providing and laying in position plain cement concrete of mix M20 with OPC cement @ 320kgs, with 40mm and down size graded granite metal coarse aggregates @ 892cum and fine aggregate @ 57cum machine mixed, concrete laid in layers not exceeding 15cm, thick, well compacted in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KES 4.1.4.2, No. 13/ Item No. 4.3/ PWD SR 2018-19	Cum	82.38	
Constructing un-reinforced pale cement concrete for pavements using rate concrete M40 Over a prepared base with OPC coarse aggregate at 0.69cum fine aggregate at 0.64cum coarse and fine aggregate conforming to IS 383:2016 with super plasticizers at 3mt of its conforming IS 9103:2008, Item no22.6 page no-175	Cum	74.00	
KSRRB M300-3: (ii) Providing & fixing 20 mm thick compressible fibre board in expansion joint complete as per drawing & technical specification complete as per specifications, NORTH specification No. 2005, No. 235/ Item No. 31.3 PWD SR 2018-19	M	66.67	
Vacuum De- watering with vacuum pump and suction mat and compaction with skin roller clubbed with floating disc including cost of generator, HOM of machinery. Servo Vibratory Power Floaterblade and disc etc. with all lead and lift No. 171/ Item No. 22.7/ PWD SR 2018-19	Sqm	63.73	
KSRRB 300-51: making 50mm x 50mm furrows at 450 to the centre line of the road and at one meters interval in the existing thin bituminous wearing course including sweeping, taking out old materials, stacking the debris within a lead of 100 meters cost of all labour charges complete as per specifications, NORTH chapter 3, No. 146/ Item No. 19.57/ PWD SR 2018-19	Sqm	0.00	
RCC Covering slabs for culverts Data rate:5111rs/Piece	Nos	0.00	
Precast slab 20mm and down size for slab including steel reinforcement including cutting and shuttling machine mixed concrete laid in layers not exceeding 15cm thick well compacted cost of all materials labour HOM of machinery curing complete as per specifications c 1.1.5.3 Including all cost of Material (DATA RATE BMCLOSSE) 10cm thick RCC pre cast slab	Sqm	100.00	
KSRRB 4.2.2: Providing and laying in position plain cement concrete of mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @ 875cum and fine aggregate @ 453cum with superplasticizer @ 1kg/cum conforming to IS 9103:2008 including cost of all materials, labour, HOM of machinery, curing complete as per specifications, NORTH specification No. 2005, No. 235/ Item No. 31.3 PWD SR 2018-19	Sqm		

providing for all works in foundation plinth and ground floor level for roof slabs, staircase, plinth, retaining walls, return walls, walling thickness including attachment, columns, piers, abutments, pillars, posts, struts, buttresses, string of base courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc. including cost of all materials, labour, H.O.M of machinery, curing, complete as per specification. Specification: No. KES 4.1.4.6, No. KES 4.1.4.6, No. 14/ item No. 4.11/ PWD SR 2018-19	Cum	100.00	
KSRR 4.9.2 providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid cost of materials, labour, H.O.M of machinery complete as per specification. Specification: No. KES 4.6.3 Page No. 18/ Item No. 4.46.2/ PWD SR 2018-19	Tonne	100.00	
KSRR 4.6.7 Providing and removing centering, shoring, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, buttresses and lintels not exceeding 1 m in depth including cost of all materials, labour complete as per specifications. Specification: No. KES 4.6.2 Page No. 17/ Item No. 4.34/ PWD SR 2018-19	Sqm	99.90	
5.2901 Providing and tying pre cast cold concrete rectangular slabs, made out of C.C 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing curing, including formwork curing, including cost of all materials, labour hire charges of machinery, loading unloading, haul and lift, transportation etc. complete. Page No. 27/ Item No. 5.502/ PWD SR 2018-19	Nos	100.00	
Providing granite slabs of selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc. complete do- 7.5 cms thick Page No. 27/ Item No. 5.31.1/ PWD SR 2018-19 (see 380 45)	Sqm	100.00	
KSRR 5.2.3 Providing and constructing granite / trap / basalt Slab stone masonry in foundation with cement mortar 1:6, stone hammer dressed in courses not less than 20 cms high, bond stones at two m apart in each course including cost of materials, labour, curing complete as per specifications KES 5.1.3 Page No. 25/ Item No. 5.6/ PWD SR 2018-19	Sqm	0.00	
KSRR 15.1.3 Providing Finish pointing to coursed stone masonry with cement mortar 1:3, 20 mm deep, after making joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications Page No. 115/ Item No. 15.1/ PWD SR 2018-19	Sqm	0.00	
Earth work excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width in hard soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, sloping the excavated soil clear from edges of excavation with lead up to 50 m after breaking of clods complete as per specifications PWD SR 2018-17/ It No. 2.1 Pg. No.6	cum	100.00	
Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @320kgs, with 20mm and down size graded granite metal coarse aggregates @ 87kscum and fine aggregates @ 45kscum, with superplasticiser @3litrs conforming to IS 9103-1999 readmixed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintels, retaining walls, return walls, walls (any thickness) including attached pillars, columns, piers, abutments, pillars, posts, struts, buttresses, string or facing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc., including cost of all materials, labour, H.O.M of machinery, curing, complete as per specifications: PWD SR 2016-17, It No. 4.11 Pg No.14	cum	99.78	
Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @320kgs, with 20mm and down size graded granite metal coarse aggregates @ 87kscum and fine aggregates @ 45kscum, with superplasticiser @3litrs conforming to IS 9103-1999 readmixed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for RCC beams, columns, roof of all sizes in foundation plinth and superstructure ground floor level for roof slabs, staircase, lintels, columns, including cost of all materials, labour, H.O.M of machinery, curing, complete as per specifications: PWD SR 2016-17, It No. 4.13 Pg No.14	cum	48.89	
Providing and laying in position Plain Cement Concrete of mix M10 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 82kscum and fine aggregates @ 45kscum machine mixed, concrete laid in layers not exceeding 15 cms, thick well compacted in foundation and plinth, cost of all materials, labour, H.O.M of machinery, curing complete as per specifications: PWD SR 2016-17, It No. 4.2, Pg No.13	cum	100.00	

KSRR 4.9.2 Providing T.M.T steel reinforcement for R.C.C work including straight, bent, cutting, bending, hooking, placing in position, lapping and for member wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOD of masonry complete as per specification for TMT Bars Fe 500 (PWD SR 2016-17 item No. 4.46.2, p. No. 18).	M Ton	82.41	
Providing and removing Centering & Shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications PWD SR 2016-17, It No. 4.28, Pg No.16	Sqm	99.00	
Providing and removing Centering & Shuttering, strutting, propping etc., and removal of form work for flat surface such as suspended floors, roofs, landings, balconies and like thickness upto 200 mm including cost of all materials, labour complete as per specifications PWD SR 2016-17, It No. 4.30, Pg No.16	Sqm	28.36	
Providing and removing Centering & Shuttering, strutting, propping etc., for column, pillars, piers, abutments, post and struts, square/rectangular / polygon in plan including cost of all materials, labour complete as per specifications PWD SR 2016-17, It No. 4.32, Pg No.16	Sqm	41.12	
Providing and removing Centering & Shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, overpasses and limits not exceeding 1m in depth including cost of all materials, labour complete as per specifications PWD SR 2016-17, It No. 4.34, Pg No.17	Sqm	100.00	
KSRR 4.6.10 Providing and removing centering, shuttering, strutting, propping etc., for chajja, corbels etc., including edges including cost of all materials, labour complete as per specifications PWD SR 2016-17, It No. 4.37, Pg No.17	Sqm	100.00	
Providing and constructing Burnt Brick masonry with approved quality of non-modular bricks of standard size of class designation S0 (Table moulded) with cement mortar 1:6 masonry for basement and super structure including cost of materials, labour charges, scaffolding, curing complete as per specifications PWD SR 2016-17, It No.6 Pg No.29	Sqm	96.15	
Providing and constructing granite/trap/basalt size stone masonry in foundation with cement mortar 1:6 stone hammer dressed in courses not less than 20cms high, bond stones at two mtr apart in each course including cost of materials, labour curing complete as per specifications PWD SR 2016-17 It No.5, Pg No.25	Cum	88.96	
Providing and constructing granite/trap/basalt size stone masonry in super structure with cement mortar 1:6, edges of stones chisel dressed in courses not less than 15 cms high, bond stones at two mtr apart in each course including cost of materials, labour, curing complete as per specifications PWD SR 2016-17 It No.5.12, Pg No.25	Cum	86.61	
Construction of partition wall 11.2 cms thick with non-modular ground moulded burnt bricks of class designation S5 with cement mortar 1:4 including cost of materials, labour charges, scaffolding, curing complete as per specifications PWD SR 2016-17, It No.6.25, Pg No.31	Sqm	0.00	
Providing 18mm thick cement plaster in single coat with cement mortar 1:4 to risk masonry including rounding off corners wherever required smooth rendering, Providing and removing scaffolding, including cost of material, labour, curing complete as per specifications PWD SR, 2016-17 It No.15.13, Pg No.115	Sqm	62.70	
Providing 20mm thick cement plaster in single coat with cement mortar 1:4 to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, Providing and removing scaffolding, including cost of	Sqm	34.26	

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1. Granite and stone aggregate as per specification.
 2. Carriage of granite/stone/aggregate to site.
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Cum 98.59

1. Granite and stone aggregate as per specification.
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Sqm 97.02

1. Granite and stone aggregate as per specification.
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Cum 100.00



Assistant Engineer
 Ward Nos. 9 and 10
 AC 1010

Assistant Executive Engineer
 Vidyanayapura Sub Division
 BBMP, Bangalore - 97